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Access to emergency hormonal contraception from community pharmacies and family planning clinics

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Aims
To evaluate differences in the time taken to access progestogen-only emergency hormonal contraception (EHC) by young women from family planning (FP) or community pharmacy settings.

Methods
An observational study of 203 women requesting EHC from FP clinics and community pharmacies in South-west Kent Primary Care Trust (PCT) from December 2002 to October 2003.

Results
Access to EHC from community pharmacy was significantly faster than from FP clinics (16 h *vs.* 41 h, $P < 0.001$). Older teenagers tended to seek EHC more quickly and were more likely to have had a contraceptive failure rather than have used no contraception at all.

Conclusion
The results provide further support for pharmacist involvement in the supply of EHC.

Introduction

The UK currently has the highest rate of teenage pregnancy in Western Europe and specifically the highest rate of live births amongst teenagers. With a rate of 29 live births per 1000 girls aged 15–19, the rate in England is more than 40% higher than in Portugal and more than four times the rate in Italy and Sweden [1]. It has been estimated that approximately 70% of unplanned pregnancies are predictable and contraceptive method failure is frequently implicated [2, 3]. Progestogen-only (levonorgestrel, total dose 1.5 mg) emergency hormonal contraception (EHC) has long been recognized as a safe and effective method of preventing unintended pregnancies, especially if taken before ovulation. However, as the efficacy declines significantly with delay of administration following unprotected sexual intercourse (UPSI) [4] and advanced supply is currently not permitted from pharmacies, it is imperative that services should be designed to promote rapid access to this method of contraception. Traditional points of access in the UK have been general practitioners (GPs) or family planning (FP) clinics but, since 2000, selected community pharmacies have been able to supply this form of EHC free of charge by a group protocol known as a Patient Group Direction (PGD) [5]. Reproductive choice was widened further in January 2001 when levonorgestrel-only EHC was deregulated from a medicine that needs a prescription to be supplied to a medicine that can be supplied by a pharmacist without a prescription, and could be supplied to women over 16 years old.

Unfortunately, the cost (approximately £24) and licensed indications for the sale of EHC act as a barrier for many women [6] and for this reason the provision of EHC by PGD has been embraced as a mechanism for improving access to EHC for young women. Recent evaluations of provision of EHC from community pharmacies have shown that both service users and healthcare professionals value this mechanism [7], but to date there has been no quantitative evaluation of whether this route actually improves speed of access. This report investigates differences in the time taken to access EHC by young women (aged <20 years) from community pharmacies or FP clinics.

Methods

A PGD was developed for use in community pharmacies. The multidisciplinary development team, including pharmacists, lead FP doctor and nurses, agreed that the PGD should allow the provision of EHC outside the normal licence restrictions for sale and specifically to women under the age of 16 provided they were deemed competent as assessed by the Fraser guidelines. This PGD allowed pharmacists to provide EHC free of charge to young women under the age of 20 years and required a summary return form to be completed for each client requesting EHC. Information collected on this form included the date of consultation, age of client and number of hours since the episode of UPSI.

A sample size of ≥74 would be adequate to detect statistically significant differences between the two groups and summary return forms were collected monthly until this sample size had been reached. Data were collected from April to September 2003. The same data were extracted retrospectively from a review of medical records of women aged ≤20 years at two of the busiest Family Planning Clinics in the SW Kent Primary Care Trust.

Statistical analysis

With a minimum sample size of 74 (for an α of 0.05 and a power of 95%) as calculated on the basis of an estimated difference in the mean time taken to access EHC in the two groups of 12 h and a SD of 20, we collected data for 116 clients accessing the service from community pharmacies and 87 from FP clinics.

The times taken to access EHC from the FP setting were normally distributed ($P = 0.345$, Kolmogornov–Smirnov test) but were not normally distributed in the pharmacy setting ($P = 0.001$, Kolmogornov–Smirnov test). Graphical visualization of the data distribution in the FP clinic showed a scattered distribution, so it was decided to analyse all the data using the Mann–Whitney *U*-test.

We went on to perform bivariate correlation analysis of the data from both settings to determine whether there was any relationship between the age of the client and the time taken for her to access EHC, and regression analysis was used to establish a causative link between the two variables. Fisher's exact test was used to compare the reason for requesting EHC with age of the client.

Results

We observed a statistically significant difference ($P < 0.001$) in the time taken to access EHC from FP clinics and pharmacies. The median time to access EHC from FP clinics was 41 h and the median time to access EHC from a community pharmacy was 16 h. Table 1 shows a breakdown of the range of times taken to access EHC following an episode of UPSI for women of vary-

Table 1
Mean time (hours) taken to access emergency hormonal contraception (EHC)

Age of client, years	Number of clients consulting pharmacy service (%), *n* = 116	Mean time (h) to access EHC from pharmacy post UPSI (95% CI)	Number of clients consulting FP service (%), *n* = 87	Mean time (h) to access EHC from FP service post UPSI (95% CI)
13	1 (0.9)	34	0	0
14	5 (4.3)	36.8 (7.2, 66.2)	9 (10.3)	40 (25.7, 54.3)
15	11 (9.5)	23 (14.7, 31.2)	19 (21.8)	42 (35.6, 50.3)
16	28 (24.1)	21.6 (17.0, 26.2)	24 (27.6)	38.3 (30.8, 45.8)
17	29 (25)	22.1 (16.4, 27.6)	20 (23)	38.4 (30.2, 46.6)
18	29 (25)	19.8 (15.5, 24.0)	8 (9.2)	38.9 (18.1, 59.6)
19	8 (6.9)	21.3 (10.1, 32.7)	5 (5.8)	41.6 (8.4, 74.8)
20	5 (4.3)	10.4 (1.9, 18.9)	2 (2.3)	51.5

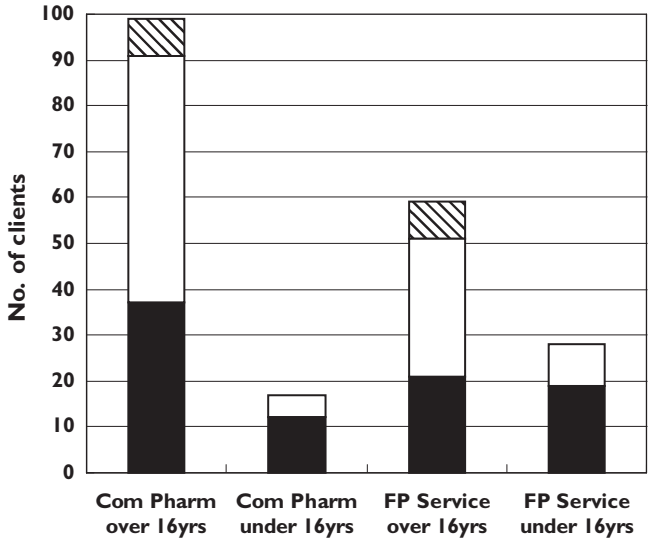

Figure 1

Reasons cited for requesting emergency hormonal contraception (EHC) according to age of client and EHC provider. Missed pill and other (▨), condom split (□), no contraception used (■)

ing ages. A weak, but statistically significant ($P < 0.05$) correlation between age and the time taken to access EHC via a community pharmacy was observed. No such relationship was observed in the FP setting. Regression analysis performed on data from the pharmacy setting demonstrated that the relationship between age and access times in this sample can be described by a trend towards a decrease in access time of just over 1 h for each additional year of age over 13 years. Unfortunately, this did not reach statistical significance and further research would be required to determine a causative link between these two variables.

As can be seen in Figure 1, the main reasons for requesting EHC were reported as being a lack of contraception or condom failure in both settings. The data also showed that clients under 16 years were more likely not to have used any form of contraception as opposed to a failure of a contraceptive method ($P < 0.05$).

Discussion

There are still issues surrounding the advanced provision of EHC [8–10] and unless these are resolved then time from UPSI to obtaining a supply of EHC is critical. The difference in access times observed between the two settings examined in this study is both statistically significant ($P < 0.001$) and clinically important. Taking results from the World Health Organization task force as reported in the Chief Medical Officer's update [11], the faster access time from community pharmacies may represent a 10% increase in the percentage of pregnancies prevented by the intervention (85% between 24 and 48 h post UPSI to 95% if taken less than 24 h post UPSI). The results showed that in the community pharmacy setting, 25% of women consulted over the course of a weekend and 25.9% on a Monday. These data are supported by a recent paper by Checa *et al.* [12], which showed a significantly higher rate of consultations on Saturdays, Sundays and Mondays.

In the community pharmacy setting, a trend was uncovered towards reduction in access times with increasing age. We acknowledge that this relationship is weak but argue that it may highlight the need to work with the very young teenagers (<15 years) in order to reduce this clinically significant delay. Teenagers under 16 were also less likely to be using any form of contraception. These findings serve to emphasize the need for educational intervention that focuses on younger adolescents. This group are also most likely to have UPSI [13].

It would be inappropriate for us to speculate why the women in this study accessed the community pharmacy service so much sooner than the FP service, but if other researchers are correct in their assessment that anonymity, discreet location and accessibility at convenient times are the major influencing factors, then there may be ramifications for the sustainability of these services in future years.

The results from this study provide further support for pharmacist involvement in the supply of EHC (and the ensuing contraceptive and sexual health advice that accompanies supply). Pharmacists themselves have reported that one of the main benefits of being involved in the supply of EHC is that it widens access [14]. It should also be noted that there is no evidence to suggest that pharmacy supply of EHC compromises contraceptive practice or sexual behaviour [15–17]. Access to EHC can be significantly improved by allowing community pharmacists to use a PGD to provide free EHC to young women and increased access could help women avoid unwanted pregnancy. This reduction in access time is statistically and therefore clinically significant, representing a potential 10% increase in the prevention of unintended pregnancies. We have also provided evidence to suggest that there is a correlation between the age of the young woman and the time she takes to access EHC. Further research is needed to determine reasons for this correlation.

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